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Against the Psych Causative Alternation in Polish¹

Abstract

The paper examines Object Experiencer (henceforth, OE)/Subject Experiencer (henceforth, SE) verb alternations in Polish in order to check whether Polish exhibits the causative/anticausative alternation in the psych domain (*psych causative alternation* of Alexiadou and Iordăchioaia 2014, henceforth A&I 2014). The focus is on two types of SE reflexive alternants of OE verbs, i.e., (i) SE forms with an obligatory instrumental case-marked DP derived from stative OE roots, and (ii) SE forms with an optional instrumental DP derived from eventive OE roots. It is argued that in both cases the reflexive SE alternants of either stative or eventive OE verbs have an obligatory or optional instrumental DP which acts as a complement and represents a Target/Subject Matter (henceforth, T/SM, cf. Pesetsky 1995), not a Cause. Therefore, the reflexive OE/SE verb alternation cannot be of the causative/anticausative type. Monovalent reflexive SE verbs, lacking an instrumental DP altogether, are unergative (Reinhart 2001), not unaccusative (contra A&I 2014). The overall conclusion reached in the paper is that the psych causative alternation is absent in Polish.

Keywords

Subject Experiencer verbs, Object Experiencer verbs, psych causative alternation, unergative verbs, unaccusative verbs, the Polish language

1. Introduction

A recurrent problem related to the puzzle of psychological verbs is their participation in the causative alternation, connected with the question whether psych

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verbs (in particular OE verbs) have a causative component in their denotation. Non-psych causative change-of-state verbs regularly alternate as in (1):

- (1) a. John broke the window.
b. The window broke.

Zubizarreta (1992) observes that in English, *frighten* verbs (which are arguably causative OE verbs, Pesetsky 1995) do not participate in the causative/anticausative alternation while other causative change of state verbs (*break*, *widen*, etc.) in general do (see also Haspelmath 1993; Reinhart 2002; Alexiadou et al. 2006; Schäfer 2008). Still, sporadically, among English psych verbs we can find the OE/SE alternation, as in (2), which potentially could be treated as an instance of causative/anticausative alternation:

- (2) a. His children worry John.
b. John worries about his children.

Though rare in English (Pesetsky 1995; A&I 2014; Alexiadou 2016), the OE/SE alternation is common cross-linguistically. It is found in languages such as Brazilian Portuguese (Cançado 2015; Petersen 2016), German (Engelberg 2018), Greek and Romanian (A&I 2014), Hebrew (Reinhart 2001; Preminger 2008; Doron 2017), Hungarian (Rákosi 2006, 2009; Jurth 2017), Polish (Biały 2005; Rozwadowska 2007), Russian (Sonnenhauser 2010), and Spanish (Franco 1990; Shimoyoshi 2016). The alternation is systematic and often morphologically marked by means of a reflexive marker (e.g., in Polish, Spanish, German, etc.) or non-active morphology (e.g., in Greek, Alexiadou and Iordăchioaia 2014). Apart from the linking problem, extensively discussed in the literature (Belletti and Rizzi 1988; Grimshaw 1990; Levin 1993; Pesetsky 1995; Arad 1998a, 1998b; Reinhart 2001; Landau 2010), the status of the non-Experiencer argument involved in this alternation has also been debated (Pesetsky 1995), as well as the nature of the alternation itself. A&I (2014) argue that the English alternation in (2) is not an instance of the causative alternation, whereas Romanian and Greek psych verbs regularly participate in what they refer to as the psych causative alternation.

We examine OE/SE verb alternations in Polish to check whether Polish exhibits the causative/anticausative alternation in the psych domain. We focus on two types of SE cognates of OE verbs, viz. (i) reflexive SE verbs followed by an obligatory instrumental case-marked nominal, whose roots have stative meaning, and (ii) reflexive SE predicates which take the instrumental nominal optionally, whose roots allow the eventive meaning. To get some insight into the nature of this alternation, it is crucial to determine the semantic and syntactic properties of the instrumental DP co-occurring with an alternating SE verb.² We argue

² We remain agnostic as to whether Polish has a DP or just an NP, and use the label 'DP' to refer to any nominal expression without committing ourselves to adhering to the DP hypothesis for Polish.

that the instrumental DP is a complement, not an adjunct, and that it represents a T/SM argument of Pesetsky (1995), not a Cause. Consequently, OE/SE alternations with SE verbs followed by an instrumental DP cannot be subsumed under the causative/anticausative alternation. Reflexive SE cognates of OE verbs that take the instrumental DP only optionally, despite showing some surface similarities with anticausatives, cannot be treated as anticausative either. Evidence is provided that reflexive variants of OE verbs in Polish must be taken to represent unergative predicates (as proposed by Reinhart 2001) rather than unaccusative structures (contrary to A&I 2014 for Greek and Romanian). As a result, even monovalent reflexive SE variants of OE verbs are not anticausative, which suggests that Polish OE verbs do not participate in the psych causative alternation.

Section 2 briefly presents aspectual properties of OE verbs in Polish relevant for further discussion. Section 3 examines SE alternants of stative OE verbs in Polish taking an instrumental case-marked DP. In Section 4, we scrutinise alternations involving eventive OE verbs in Polish (both reflexive SE variants of eventive OE verbs that co-occur with an instrumental DP and monovalent reflexive SE cognates of eventive OE verbs) with a view to establishing whether they may be treated as anticausative variants of causative OE verbs. Section 5 concludes.

2. Aspectual properties of OE verbs in Polish

OE verbs analysed here belong to Class II in Belletti and Rizzi's (1988) typology, as they have an Experiencer marked for the accusative case. Cross-linguistically, within this class, two sub-classes have been recognized: stative and eventive (Pesetsky 1995; Arad 1998a, 1998b, among others). Following Biały (2005: 75), we assume that stative OE verbs in Polish include *martwić* 'to worry', *przygnębiać* 'to depress', *interesować* 'to interest', *fascynować* 'to fascinate', *smucić* 'to sadden', *cieszyć* 'to please', *intrygować* 'to intrigue', *dziwić* 'to surprise', etc. Polish eventive OE verbs, in turn, include *irytować* 'to irritate', *straszyć* 'to scare', *obrażać* 'to insult', *bawić* 'to amuse', *złościć* 'to annoy', etc.³ Importantly, on top of this lexical division, the majority of verbs in Polish, including psych verbs, appear in perfective and imperfective forms, which is illustrated in (3) for an OE predicate *straszyć* 'to scare':⁴

³ Biały (2005; chapter 3) adopts a number of tests to distinguish between stative and eventive OE verbs in Polish, such as: (i) the use of punctual and delimitative temporal adverbials (*in five minutes, yesterday*), (ii) the imperative, (iii) habitual interpretation, and (iv) bound iterativity.

⁴ The following abbreviations are used here: ACC – accusative, ACT – active, DAT – dative, GEN – genitive, IMPERF – imperfective, INSTR – instrumental, NACT – non-active, NOM – nominative, PERF – perfective, REFL – reflexive, SG – singular.

- (3) a. Dźwięk dzwonka straszył Marka.
 noise-NOM bell scared-IMPERF Mark-ACC
 ‘The noise of the bell scared Mark.’
- b. Dźwięk dzwonka przestraszył Marka.
 noise-NOM bell scared-PERF Mark-ACC
 ‘The noise of the bell scared Mark.’

As a result, there is an interaction between the lexical meaning and the aspectual form. Imperfective OE verbs describe a state, while perfective OE verb forms refer to an onset to a state (Rozwadowska 2012), and are therefore eventive. Perfective forms can appear with punctual time adverbials such as *nagle* ‘suddenly’, and with delimitative time adverbials such as *w kilka sekund* ‘in a few seconds’; imperfective OE verbs are incompatible with either punctual or delimitative time adverbials. This is illustrated in (4a–b):

- (4) a. Dźwięk dzwonka przestraszył Marka nagle
 noise-NOM bell scared-PERF Mark-ACC suddenly
 /w kilka sekund.
 /in a few seconds
 ‘The noise of the bell scared Mark suddenly/in a few seconds.’
- b. Dźwięk dzwonka straszył Marka *nagle
 noise-NOM bell scared-IMPERF Mark-ACC *suddenly
 /* w kilka sekund.
 /* in a few seconds
 ‘The noise of the bell scared Mark *suddenly/*in a few seconds.’

The incompatibility of the imperfective form of a psych verb with either punctual or delimitative time adverbials indicates that imperfective psych verbs are not telic events. Still, as pointed out by a reviewer, they could be activities or processes and not necessarily states. There is a lot of controversy concerning the reliability of various stativity tests, including those mentioned in footnote 2 (see e.g., Maienborn 2019; García-Pardo 2018: 8–26). We follow Maienborn (2019), who claims that a suitable linguistic test for non-eventivity is its incompatibility with the predicate *to happen*. Imperfective psych verbs do not allow the anaphoric reference by the Polish equivalent of this predicate: *zdarzyć się*, as in (5a), whereas their perfective equivalents do, as in (5b).

- (5) a. Dźwięk dzwonka straszył Marka. #To zdarzyło się
 noise-NOM bell scared-IMPERF Mark-ACC that happened REFL
 podczas pokazu sztucznych ogni.
 during show fireworks
 ‘The sound of the bell scared Mark. #That happened during the fireworks show.’

- b. Dźwięk dzwonka przestraszył Marka. To zdarzyło
 noise-NOM bell scared-PERF Mark-ACC that happened
 się podczas pokazu sztucznych ogni.
 REFL during show fireworks
 'The noise of the bell scared Mark. That happened during the fireworks show.'

Thus, the distinction between eventive and stative OE verbs in Polish correlates not only with the meaning of the root, but primarily with the aspectual opposition: perfective vs. imperfective. This interaction gives rise to three distinct interpretations, viz. agentive, as in (6), eventive in (7), and stative in (8) (for the various readings of OE verbs cross-linguistically, see Pesetsky 1995; Arad 1998a, 1998b, 1999; Rothmayr 2009; Landau 2010; A&I 2014, among others):

- (6) Marek celowo denerwuje Ewę.
 Mark-NOM on purpose annoys Eve-ACC
 'Mark annoys Eve on purpose.'
- (7) a. Marek niechcący zdenerwował Ewę.
 Mark-NOM unintentionally annoyed-PERF Eve-ACC
 'Mark annoyed Eve unintentionally/accidentally.'
- b. Hałas /brak pieniędzy zdenerwował Ewę.
 noise-NOM /lack of money-NOM annoyed-PERF Eve-ACC
 'The noise/the lack of money started to annoy Eve.'
- (8) a. Marek denerwuje Ewę.
 Mark-NOM annoys-IMPERF Eve-ACC
 'Mark annoys Eve.'
- b. Hałas /brak pieniędzy denerwuje Ewę.
 noise-NOM /lack-NOM money annoys-IMPERF Eve-ACC
 'The noise/the lack of money annoys Eve.'

In (6), the agentive interpretation is forced by the presence of an Agent-oriented adverbial *celowo* 'on purpose'. The sentences in (7), where both the animate and inanimate DP in subject position are possible, are associated with the eventive interpretation unambiguously marked by the perfective form of the verb (cf. (5b)). Finally, the sentences in (8), hosting an animate or inanimate DP in the subject position, give rise to stative reading, which is reinforced by the imperfective form of the verb (cf. (5a)). The nominative argument in (6) represents an Agent, while in (8) it corresponds to a T/SM. In (7), the nominative DP is ambiguous between Cause and T/SM interpretation (Pesetsky 1995).

3. SE alternants of stative OE verbs in Polish

Following the reasoning of A&I (2014), we compare the distribution of particular PPs in the reflexive alternation of psych verbs with the PPs in the causative alternation of the non-psych change of state verbs. A&I take the presence of a causative preposition to be indicative of the causative nature of the verbs undergoing the alternation. In Greek and Romanian prepositions that mark non-agentive causers in eventive readings are different from those that mark T/SM roles in stative readings. This difference can only be observed with SE verb forms. Importantly, the prepositional marking of causers in eventive psych readings is identical to the marking in the causative alternation of non-psych verbs. This is illustrated in (9)–(10) for Greek after A&I (2014):⁵

- (9) a. O Janis ekapse ti supa.
 the John burnt-ACT the soup
 ‘John burnt the soup.’
- b. I supa kaike *me* ti dinati fotia/ *apo to Jani.
 the soup burnt-NACT with the strong fire/ by the John
 ‘The soup burnt from the strong fire/*by John.’
- (10) a. Ta nea enohlisan ti Maria.
 the news annoyed-ACT the Mary-ACC
 ‘The news annoyed Mary.’
- b. I Maria enohlithike *me* ta nea.
 the Mary annoyed-NACT with the news
 ‘Mary got annoyed with the news.’

The non-agentive causer subject in the OE example in (10a) is realized as a non-agentive causer *me* in the SE example in (10b). The few psych verbs that have a stative SE variant (e.g. the verbs *interest* in Greek and *gladden* in Romanian), however, use a different preposition to realize the T/SM arguments that surface as subjects in the OE version. Greek systematically uses the preposition *ja* ‘for’ to mark the T/SM argument with the SE verb, while Romanian employs a few such prepositions (depending on the verb). Non-agentive causer PPs are completely ruled out with SE variants of those verbs, which is taken as evidence that these verbs are unambiguously stative (like other stative SE verbs). A&I (2014) conclude that the Greek preposition *me* (and the equivalent Romanian complex preposition *de la*) mark non-agentive causers in change of state verbs. Thus, the eventive SE verb form (in contrast to the stative SE verb) is just as causative as the corresponding eventive OE form. The conclusion is that in Greek (and Romanian) there is a psych causative alternation, and that OE verbs behave like change of state verbs.

⁵ Similar facts obtain in Romanian.

Given the above background, let us introduce the causative/anticausative alternation typical of Polish change of state verbs:

- (11) a. Podmuch wiatru złamał gałąź.
gust-NOM of-wind broke-PERF branch-ACC
'The gust of wind broke the branch.'
- b. Gałąź złamała się (od podmuchu wiatru).
branch-NOM broke-PERF REFL from gust of-wind
'The branch broke from the gust of wind.'
- c. Gałąź złamała się (*podmuchem wiatru).
branch-NOM broke-PERF REFL (gust-INSTR wind- GEN)
'The branch broke from the gust of wind.'

Sentence (11a) represents a causative structure, whereas (11b) corresponds to its anticausative variant. The verb in the anticausative variant is accompanied by the reflexive marker *się*. Moreover, sentence (11b) hosts an optional Cause-PP, introduced by the preposition *od* 'from'.

Polish stative OE verbs such as *fascynować* 'to fascinate', *interesować* 'to interest', *brzydzić* 'to disgust', *zachwycać* 'to enchant', etc. (cf. section 2), have SE alternants marked with the reflexive *się* which co-occur with an obligatory instrumental DP:

- (12) a. Matematyka/Maria interesuje Marka.
maths-NOM/Mary-NOM interests-IMPERF Mark-ACC
'Maths interests Mark.'
- b. Marek interesuje się *(matematyką)/(Marią).
Mark-NOM interests-IMPERF REFL *(maths-INSTR)/(Mary-INSTR)
'Mark is interested in maths/in Mary.'
- c. *Marek interesuje się (od matematyki)/(od Marii).
Mark-NOM interests-IMPERF REFL (from maths)/(from Mary)
'*Mark is interested from maths/from Mary.'
- (13) a. Kłamstwo/Ty brzydzi /brzydzisz Marka.
lying-NOM/you-NOM disgust-IMPERF-3SG /disgust-IMEPERF-2SG Mark-ACC
'Lying/you disgust Mark.'
- b. Marek brzydzi się *(kłamstwem)/(tobą).
Mark-NOM disgusts-IMPERF REFL *(lying-INSTR)/(you-INSTR)
'Mark is disgusted with lying/with you.'
- c. *Marek brzydzi się (od kłamstwa)/(od ciebie).
Mark-NOM disgusts-IMPERF REFL (from lying)/(from you)
'*Mark is disgusted from lying/from you.'

Note that the Cause can never be realized as a DP in the instrumental case in the non-psych causative alternation (11c). Conversely, instrumental DPs in (12b) and (13b) cannot be replaced with *od*-PPs in (12c) and (13c), which additionally proves that they represent T/SM arguments. Moreover, in (12) and (13), the sentence with an OE in (a) entails the sentence with an SE in (b), which is further supported by the fact that the sentences in (14) are contradictory:

- (14) a. #Matematyka interesuje Marka, ale Marek
 maths-NOM interests-IMPERF Mark-ACC but Mark-NOM
 nie interesuje się matematyką.
 not interests-IMPERF REFL maths-INSTR
 ‘#Maths interests Mark but Mark is not interested in maths.’
- b. #Kłamstwo brzydzi Marka, ale Marek
 lying-NOM disgust-IMPERF-3SG Mark-ACC but Mark-NOM
 nie brzydzi się kłamstwem
 not disgusts-IMPERF REFL lying-INSTR
 ‘#Lying disgusts Mark, but Mark is not disgusted with lying.’

Consequently, the theta roles of the two arguments in both cases must be the same, viz. the Experiencer and the T/SM.⁶ Furthermore, SE alternants of stative OE verbs with an instrumental DP may appear with an optional Cause-PP, as in (15):

- (15) Marek interesuje się matematyką (z powodu
 Mark-NOM interests-IMPERF REFL maths-INSTR on-account-of
 jej wysokiego stopnia abstrakcji).
 its high level of-abstraction
 ‘Mark is interested in maths because of its high level of abstraction.’

The Cause phrase *z powodu* ‘on account of’, present in (15), is more complex than the *od*-PP, found in (11b), and represents an all-purpose Cause, as it is not restricted to any particular structure.⁷ The possibility of using such phrase

⁶ Some SE alternants of stative OE verbs in Polish co-occur with an optional rather than an obligatory instrumental case marked DP, as in (i)–(ii) below:

- (i) Nowy samochód cieszy Marka.
 new car-NOM pleases Mark-ACC
 ‘The new car pleases Mark.’
- (ii) Marek cieszy się (nowym samochodem).
 Mark-NOM is-pleased-IMPERF REFL new car-INSTR
 ‘Mark is pleased (with the new car).’

The fact that there is no clear semantic division between the roots that take the instrumental DP obligatorily or optionally seems to support our line of reasoning that the reflexive alternation they participate in should be given a uniform treatment.

⁷ In (28) and (29) it is demonstrated that *od*-Cause PPs are also all-purpose Cause phrases, not restricted to anticausative structures.

in (15) indicates that the instrumental DP cannot represent a Cause, but functions as a T/SM argument. There is no violation of the T/SM restriction of Pesetsky (1995), since the Cause-PP represents an adjunct, not a complement.

Moreover, we can augment the argument structure of the OE verb *interesować* ‘to interest’ by adding the prefix *za-*, which in addition to perfectivizing the verb, allows the addition of the Agent as in (16), on top of the Experiencer and T/SM. This further strengthens the conclusion that the instrumental DP cannot be a Cause.

- (16) Nauczyciel zainteresował Marka matematyką.
 teacher-NOM interested-PERF Mark-ACC maths-INSTR
 ‘The teacher got Mark interested in mathematics.’

To sum up, the most common SE alternants of stative OE verbs in Polish host an obligatory instrumental case-marked argument (but cf. footnote 6 above) which corresponds to a T/SM role. The Cause argument is never present with stative OE verbs, and neither can it be found with their SE cognates. Hence, the alternation between stative OE verbs and their SE counterparts cannot be regarded as an instance of the causative/anticausative alternation. This observation tallies well with A&I (2014), for whom stative OE verbs are not involved in the psych causative alternation, because they lack a Cause argument.

4. SE alternants of eventive OE verbs in Polish

4.1. SE alternants of eventive OE verbs with instrumental DPs

Similarly to stative OE verbs, eventive OE predicates in Polish frequently alternate with SE verbs accompanied by an instrumental DP. In what follows we make sure that the verbs are eventive by selecting perfective variants of (arguably) eventive roots. The reflexive alternation with the instrumental DP is illustrated for them in (17) and (18):⁸

⁸ If an SE variant of an OE verb requires an obligatory instrumental DP in the imperfective (which is stative, cf. (12a)), it also requires it in the perfective form, as in (i)–(ii) below for the verb *interesować* ‘to interest’:

- (i) Matematyka zainteresowała *(Marka).
 maths-NOM started-to-interest-PERF Mark-ACC
 ‘Maths started to interest Mark.’
 (ii) Marek zainteresował się *(matematyką).
 Mark-NOM got-interested-PERF refl maths-INSTR
 ‘Mark started to be interested in maths.’

The verb *zainteresować* ‘start to interest’ in (i) is perfective and hence eventive. Its SE variant in (ii) requires the instrumental DP obligatorily. Moreover, it seems that obligatoriness vs. optionality of the instrumental DP depends on the lexical semantics of the verb.

- (17) a. Filmy w telewizji znudziły Marka.
 films-NOM in TV bored-PERF Mark-ACC
 'Films on TV bored Mark.'
- b. Marek znudził się (filmami w telewizji).
 Mark-NOM got-bored-PERF REFL (films-INSTR in TV)
 'Mark got bored with films on TV.'
- (18) a. Głupie gadanie zdenerwowało Marka.
 idle talk-NOM annoyed-PERF Mark-ACC
 'Idle talk started to annoy/annoyed Mark.'
- b. Marek zdenerwował się (głupim gadaniem).
 Mark-NOM got-annoyed-PERF REFL idle-INSTR talk-INSTR
 'Mark got annoyed with idle talk.'

The sentences in (17a) and (18a) entail the ones in (17b) and (18b), which indicates that the two arguments present in these sentences have the same theta role, viz. that of the Experiencer and the T/SM. When compared with the SE cognates of stative OE verbs, the sentences in (17b) and (18b) have an optional instrumental DP, which may co-occur with an optional Cause-PP, as in (19). Thus, they are part of the same alternation as that attested for stative OE verbs, illustrated in (12b) and (13b) (cf. (15)).

- (19) Marek znudził się filmami w telewizji
 Mark-NOM got-bored-PERF REFL films-INSTR on TV
 (z powodu ich braku oryginalności).
 (onaccount-of their lack of originality)
 'Mark got bored with films on TV (because of their lack of originality).'

Even though the instrumental DPs in (17b) and (18b) are optional, they function as complements, not as adjuncts. Although the tests posited in the literature to distinguish adjuncts from complements do not yield conclusive results (cf. Przepiórkowski 1999: chapter 8, and Przepiórkowski 2017), we can get some insight into the nature of instrumental DPs optionally co-occurring with reflexive SE verbs in Polish as in (18b) by comparing them with instrumental case-marked adjuncts, such as *nocą* 'at night'. While the instrumental case-marked adverbial of time may be added in (20) below, adding an instrumental case-marked T/SM leads to ungrammaticality, as in (21):

- (20) Artykuł w „Polityce” /Maria zdenerwował/a Marka nocą.
 article in Politics-NOM /Mary-NOM annoyed-PERF Mark-ACC night-INSTR
 'The article in *Polityka*/Mary started to annoy Mark at night.'
- (21) *Artykuł w „Polityce” /*Maria zdenerwował/a Marka
 article-NOM in *Polityka* /Mary-NOM annoyed-PERF Mark-ACC
 sytuacją bezdomnych.
 situation-INSTR homeless-GEN
 '*The article in Politics/Mary started to annoy Mark with the situation of the homeless.'

(21) is unacceptable on semantic rather than syntactic grounds, as it contains two T/SM arguments, one realised as a nominative DP and the other as an instrumental one. The unacceptability of (21), compared with the acceptability of (20) indicates that the status of the instrumental DP in both cases is different. In (21), the instrumental DP has a T/SM theta role, and thus represents an argument, while in (20) it is simply an adjunct, not being part of argument structure. This observation also holds for reflexive SE verbs derived from eventive OE verbs, as in (22):

- (22) Marek zdenerwował się nocą sytuacją bezdomnych.
 Mark-NOM annoyed-PERF REFL night-INSTR situation-INSTR homeless-GEN
 'Mark started to be annoyed at night with the situation of the homeless.'

Sentence (22) with two instrumental case-marked DPs is perfectly licit, because these two instrumental DPs are of a different type – *nocą* 'at night' is a time adverbial, which acts as an adjunct, whereas *sytuacją bezdomnych* 'the situation of the homeless' serves as an argument with a T/SM theta role.⁹ Another argument to support the complement status of the optional instrumental T/SM, as in (18b), may be obtained from example (23):

- (23) Marek denerwuje się nocami.¹⁰
 Mark-NOM annoy-IMP REFL nights-INSTR
 'Mark is annoyed with the nights.' or 'Mark is annoyed at nights.'

Sentence (23) is ambiguous: nights may be understood as the thing that Mark worries about (presumably because of his insomnia), or may simply refer to the time when Mark worries about something. The two interpretations require two different structures, in which the instrumental DP is associated with two different functions – a complement or an adjunct, respectively. This supports our claim that eventive OE verbs may participate in the same kind of

⁹ In (22) the instrumental case-marked T/SM follows the adverbial of time, which has been used by Żychliński (2013: 143) as an argument for the adjunct status of an instrumental case marked DP. However, this argument is not valid, as we can insert a time adverbial in front of complements in Polish, as shown in (i):

- (i) Marek dał nam wczoraj dużo pieniędzy.
 Mark-NOM gave us-DAT yesterday much money-ACC
 'Mark gave us yesterday a lot of money.'

¹⁰ Although the verb in (23) is imperfective, it can be eventive, as confirmed by the following data:

- (i) Marek denerwuje się nocami. Dzieje się tak przez jego bezsenność.
 Mark-NOM annoy-IMP REFL nights-INSTR happens REFL so because-of his insomnia
 'Mark is annoyed with the nights. This happens because of his insomnia.'

An anonymous reviewer asks whether sentence (23) can have eventive reading on both interpretations. It seems that given the appropriate context, this is indeed the case. However, in view of the controversy surrounding stativity vs. eventivity tests mentioned in section 2, this question deserves further research, independent of the main point of this paper.

that this relates to the fact that with eventive OE verbs, the non-Experiencer may represent not only a T/SM, but also a Cause. We adopt here Reinhart's (2001, 2016) definition of a Cause, according to which a Cause is associated with the feature cluster [+c, -m], which overlaps with the role of an Instrument. Following Reinhart (2001), we assume that the disambiguation of the T/SM and Cause roles depends on the context. In (24a), *Maria* 'Mary' is more likely to be construed as a Cause than a T/SM, as in a similar English example, taken from Reinhart (2001: 16): *The doctor worried Lucie*. The marginal status of (24b), then, follows from the fact that the instrumental DP cannot realise a Cause, but just a T/SM, as pointed out in relation to (17b) and (18b). Sentence (24b) improves when instead of the instrumental DP, the Cause PP *przez Marię* 'because of Mary' is used.¹³ However, there are cases where an instrumental case-marked animate DP is felicitous as a complement of a reflexive SE verb, as in (25):

- (25) a. *Maria znudziła Marka.*
 Mary-NOM bored-PERF Mark-ACC
 'Mary has bored Mark.'
- b. *Marek znudził się Marią /??przez Marię.*
 Mark-NOM got-bored-PERF REFL Mary-INSTR /??because of Mary
 'Mark has got bored with Mary/??because of Mary.'

In (25a), the animate DP *Maria* 'Mary' is more readily construed as a T/SM and is not likely to function as a Cause, as confirmed by the degraded status of the Cause *przez*-phrase in (25b). Inanimate DPs, which are easily construed as T/SM arguments, are perfectly licit with reflexive SE alternants of eventive OE verbs (cf. (17b) and (18b)). This line of reasoning also explains why no contrast between animate and inanimate DPs arises in the case of SE cognates of stative OE verbs in Polish: with stative OE verbs, the non-Experiencer is always unambiguously construed as a T/SM, and never as a Cause. Since both animate and inanimate DPs serve as T/SM arguments with stative OE verbs, it comes as no surprise that they may be both attested in the complement position of reflexive SE variants of these verbs.

To wrap up, eventive OE verbs frequently alternate with reflexive SE verbs taking an instrumental DP, as in the alternation found with stative OE verbs (section 3). The differences concern (i) the optionality vs. obligatoriness of the

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- (i) *Zdenerwował się na rząd na skutek/pod wpływem podwyżek cen.*
 he-got-nervous-PERF REFL at government as result/under influence rises prices
 'He got annoyed at the government as a result of price rises.'
- (ii) *Polityk obraził się na dziennikarza za takie pytanie.*
 politician-NOM go-offended-PERF REFL with journalist for such question
 'The politician got offended with the journalist for such a question.'

¹³ Although homophonous with the agentive *przez* 'by'-phrase, the *przez*-phrase in (24b) clearly introduces a Cause, not an Agent.

instrumental DP (but cf. fn. 6), and (ii) the lack of any restrictions on the instrumental DP vs. the restricted occurrence of animate DPs as instrumental DPs. In spite of being optional, the instrumental DP, found with reflexive SE variants of eventive OE verbs, acts as a complement, in a way analogous to obligatory instrumental DPs attested with SE cognates of stative OE verbs in Polish. The restriction on the occurrence of animate DPs as instrumental DPs has been accounted for by appealing to the differences in meaning between stative (non-causative) and eventive (potentially causative) OE verbs. Consequently, eventive and stative OE verbs participate in the same alternation with reflexive SE verbs followed by an instrumental DP, which nonetheless does not represent the causative/anticausative alternation.

4.2. Monovalent reflexive SE alternants of eventive OE verbs in Polish

The causative/anticausative alternation is typically found with change-of-state verbs, where the causative variant is transitive, while its anticausative counterpart is intransitive. Eventive OE verbs are generally considered to be causative (Grimshaw 1990; Pesetsky 1995; Iwata 1995; Reinhart 1996, 2002; Arad 1998a, 1998b, among others), and hence one might expect their monovalent SE variants to be anticausative.

Biały (2005: 70–71) analyses the alternation illustrated in (26) as an instance of the causative/anticausative alternation.

- (26) a. *Głupie gadanie zdenerwowało Marka.*
 idle talk-NOM annoyed-PERF Mark-ACC
 'Idle talk started to annoy/annoyed Mark.'
- b. *Marek zdenerwował się.*
 Mark-NOM started to-be-annoyed-PERF REFL
 'Mark started to be annoyed with idle talk.'

The phrase *głupie gadanie* 'idle talk' is missing in (26b), which Biały (2005) interprets as the reduction of an external argument, typical of anticausatives (see section 3). An optional Cause PP may be added to (26b), as in (27):¹⁴

- (27) *Marek zdenerwował się (od głupiego gadania).*
 Mark-NOM got-annoyed-PERF REFL from idle talk
 'Mark got annoyed with idle talk.'

Actually, *od*-Cause PP is typical not only of anticausatives, and thus differs from its English counterpart, viz. *from*-Cause phrase. The data in (28) and (29)

¹⁴ Some native speakers consulted consider (27) with *od*-PP to be deviant. Likewise, a reviewer notes that *od*-Cause PPs are marginal with reflexive SE verbs.

show that *od*-Cause PP may co-occur with a non-causative transitive verb and an unergative activity verb, respectively:

- (28) Marek plecie głupstwa od leków nasennych.
 Mark-NOM talks nonsense-ACC from pills sleeping
 'Mark talks nonsense because of sleeping pills.'

- (29) Marek podskakiwał od nadmiaru energii.
 Mark-NOM jumped from excess energy
 'Mark jumped because of having too much energy.'

A&I (2014) observe that SE variants of eventive OE verbs in Greek and Romanian combine with Cause-PPs, which can also be found in anticausatives, but are distinct from the PPs introducing T/SM arguments (cf. section 3 above). In Polish, *od*-Cause PP is rather an all-purpose Cause marker, like *because of* in English, since it can be inserted in any syntactic structure.¹⁵ Therefore, we suggest that monovalent reflexive SE variants of eventive OE verbs are not inherently causative in Polish, and causation is introduced by Cause PPs themselves.

Furthermore, even in structures with an SE verb followed by an instrumental DP complement, the insertion of *od*-Cause PP is possible (but see footnote 14 above), as in (30):

- (30) Marek irytował się każdym najdrobniejszym
 Mark-NOM got-irritated-PERF REFL each smallest
 szczegółem od nadmiaru obowiązków w pracy.
 detail-INSTR from excessive duties at work
 'Mark got irritated with every single detail from too many duties at work.'

We believe that sentences such as (27) are very much like (30), except that the instrumental DP is missing in the former, but is present in the latter, which, as argued in section 4.1, results from the fact that the instrumental DP, like many other arguments, may be omitted with the majority of reflexive SE variants of eventive OE verbs. In other words, the sentence with the monovalent reflexive SE verb like (26b) is not an anticausative variant of (26a), but shows a close affinity with a sentence like (31) below.

¹⁵ Cuervo (2015) makes similar observations for Spanish. She notes that PPs that express a causer or force (headed by the prepositions *por* or *con* in Spanish) are compatible with the unaccusatives argued to lack a CAUSE component and with the non-alternating unaccusatives such as *llegar* 'to arrive' and *rodar* 'to roll'. Cuervo argues that this fact weakens the argument that the compatibility of inchoatives with these phrases points to the presence of CAUSE in inchoatives. Our discussion is neutral with respect to different approaches to the causative/anticausative alternation as such. We simply argue that there is no psych-causative alternation in Polish and leave for further research the question how this conclusion bears on the choice between different approaches to event composition of reflexive and causative verbs.

- (31) Marek zdenerwował się (głupim gadaniem).
 Mark-NOM got-annoyed-PERF REFL idle talk-INSTR
 ‘Mark got annoyed with idle talk.’

The only difference between (26b) and (31) lies in the respective absence vs. presence of an instrumental DP. Consequently, (26b) is a variant of (31), not an anticausative alternant of (26a). In fact, the only SE variant of an eventive OE verb as in (26a) is (31), where the instrumental DP is present, and (26b) is derived from (31), not from (26a). Thus, in spite of surface similarities to anticausatives, the monovalent SE variants of eventive OE verbs are not anticausative. This implies that the psych causative alternation is absent in Polish altogether, in a way analogous to English.

Let us recall (section 3) that Causes may never be realised in Polish anticausatives as instrumental case-marked DPs, as seen in (11c), repeated for convenience below:

- (11) c. Gałąź złamała się (*podmuchem wiatru).
 branch-NOM broke-PERF REFL (gust-INSTR wind- GEN)
 ‘The branch broke from the gust of wind.’

The sentence in (11c) clearly contrasts with the data like (17b) and (18b) above (cf. also (31)), which may co-occur with an instrumental DP, which nonetheless, does not represent a Cause, but rather acts as a T/SM. The grammaticality contrast between the anticausative in (11c) and the reflexive SE variants of eventive OE verbs like (17b) and (18b) points towards the conclusion, already reached in section 4.1, that the OE/SE pairs depicted in (17) or (18) cannot be viewed as instances of the causative/anticausative alternation.

In the account proposed above, the monovalent reflexive SE verb is derived from the structure hosting an SE verb followed by an instrumental DP complement via argument omission. i.e., monovalent reflexive SE verbs cannot be treated as anticausative variants of causative OE verbs in Polish. This seems to support treating monovalent reflexive SE variants of eventive OE verbs in Polish as unergative (as in Reinhart 2001), rather than viewing them as unaccusative (contra A&I 2014 for Greek and Romanian). Actually, the tests to distinguish unaccusative from unergative verbs proposed in the literature, including the use of resultative phrases, locative inversion (Levin and Rappaport Hovav 1995), prenominal (adjectival) use of participles (Hoekstra 1984), and the genitive of negation (Pesetsky 1982) do not yield conclusive results in Polish (space limitation preclude an in-depth discussion of these tests in relation to Polish, which may be found in Cetnarowska 2000, 2002) for various types of predicates in Polish, cf. also Bondaruk (in press) for the application of these diagnostics specifically to Polish psych verbs). Reinhart (2016) adds that unergative verbs, in contradistinction to unaccusatives, do not license either verb-subject order or modification by possessive datives.

(32) a.	Tańczyli	trzej	chłopcy.		unergative	
	danced-PL	three	boys-NOM			
	'Three boys danced.'					
b.	Stłukły	się	trzy	kubki.	unaccusative	
	broke-PL	REFL	three	mugs-NOM		
	'Three mugs broke.'					
(33) a.	Marcie	piszczał	pies.		unergative	
	Martha-DAT	squealed	dog-NOM			
	'Martha's dog squealed.'					
b.	Markowi	stłukły	się	trzy	kubki.	unaccusative
	Mark-dat	broke-PL	REFL	three	mugs-NOM	
	'Mark's three mugs broke.'					

(34) Zadzwoniono po lekarza. unergative
 phoned-*NO.PERF* for doctor
 ‘They phoned for a doctor.’

(35) *Wyrośnięto w atmosferze terroru.¹⁶ unaccusative
 grew-up-*NO.PERF* in atmosphere terror
 ‘They grew up in an atmosphere of terror.’ (Cetnarowska 2002: 64)

However, the contrast between (35) and (36) still holds for perfective forms of unergative and unaccusative verbs in Polish.

- (36) Fani Anwilu czekają na mistrzostwo od kilku lat, a
 fans-NOM Anwil-GEN wait for championship for some years and
 we Wrocławiu trochę znudzono się sukcesami.
 in Wrocławiu a-bit got-bored-NO.PERF REFL successes-INSTR
 ‘Anwil fans have been waiting for the championship for a few years, but in Wrocław
 they got bored with successes.’

The grammaticality of (36) indicates that *znudzić się* ‘to get bored’ is unergative, not unaccusative.

5. Conclusion

The analysis of OE/SE verb alternations in Polish carried out in the paper has primarily focused on two types of reflexive SE alternants, viz. (i) with an instrumental DP, and (ii) the monovalent ones. It has been argued that they should be given a uniform analysis, according to which the reflexive SE cognates of both eventive and stative OE verbs have an obligatory or optional instrumental DP which acts as a complement, representing a T/SM, not a Cause. Therefore, this type of OE/SE verb alternation cannot be viewed as a subtype of the causative/anticausative alternation. Monovalent reflexive SE verbs in Polish only superficially resemble anticausatives, but in fact they do not alternate with eventive (causative) OE verbs at all. Instead, they are derived from dyadic SE verbs with an instrumental DP via complement omission. Consequently, they are unergative, not unaccusative, and as a result they do not participate in the psych causative alternation, either. The overall conclusion reached in the paper is that the psych causative alternation is not manifested in Polish at all. This way, Polish patterns with English as regards the psych causative alternation, but is distinct from Greek and Romanian.

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